

RINGKASAN

PT. Jogja Magasa Iron adalah perusahaan pertambangan yang bergerak dalam penambangan endapan pasirbesi di Kabupaten Kulon Progo, Propinsi Daerah Istimewa Yogyakarta. Perusahaan memiliki Ijin Usaha Pertambangan (IUP) seluas 2.897,79 Ha. Saat ini perusahaan dalam tahap melakukan uji coba penambangan (*pilot project*) pada *area pilot project*.

Luas *area pilot project* 20 Ha yang dibagi menjadi 2 yaitu 6 Ha *area processing plan* dan 14 Ha sebagai area penambangan. *Area pilot project* secara astronomis terletak pada 110°5'11.628"BT-110°5'28.997"BT dan 7°55'0.386"LS - 7°55'13.699"LS. Pasirbesi area tersebut terdiri dari 2 lapisan yaitu *surface sand* dan *gravel sand*. *Surface sand* berada di atas *gravel sand* dengan ketebalan lapisan berbeda-beda. Kadar Fe rata-rata *surface sand* 12,59% atau lebih tinggi dari kadar Fe rata-rata *gravel sand* 4,5%.

Area penambangan *pilot project* dibagi dalam 4 blok yaitu blok 1, blok 2, blok 3, dan blok 4. Cadangan tiap blok berbeda-beda, total cadangan blok 1,2,3, dan 4 yaitu 699.267 m³. Target produksi tiap bulan yaitu 25.000 ton konsentrat atau 130.000 ton ROM. Keseluruhan blok habis ditambang selama 10,68 bulan.

Penambangan menggunakan metode Alluvial Mine dengan cara *mechanical-dry methode*. Peralatan mekanik yang digunakan backhoe, dumptruk, dan bulldozer. Dimensi kemiringan lereng 35° sesuai dengan *angle of repose* pasir besi, tinggi jenjang 3 m, dan lebar jenjang 2 m. Lantai kerja dibatasi pada level 3,5 mdpl atau setinggi ketinggian muka air tanah pada musim penghujan. Batas lantai tambang hingga pada kedalaman -2,5 mdpl. Penambangan hanya dilakukan pada lapisan *surface sand*.

SUMMARY

PT. Jogja Magasa Iron is a mining company engaged in mining deposits pasirbesi in Kulon Progo, Daerah Istimewa Yogyakarta Province. Mining companies have a business license (IUP) area of 2897,79 Ha. The company currently in the testing phase of mining in the pilot project area.

Pilot project area of 20 hectares which is divided into 2, of 6 Ha plan processing area and 14 hectares as a mining area. Pilot project area lies in the astronomically $110^{\circ}5'11.628''\text{BT}$ - $110^{\circ}5'28.997''\text{BT}$ dan $7^{\circ}55'0.386''\text{LS}$ - $7^{\circ}55'13.699''\text{LS}$. Pasirbesi area consists of two layers of the surface sand and gravel sand. Surface sand above the gravel layer of sand with a bunch of different thicknesses. The average Fe content of surface sand 12.59% or higher than the average Fe content of sand gravel 4.5%.

Mining pilot project area is divided into 4 blocks of the block 1, block 2, block 3, and block 4. Backup of each block is different, the total reserve blocks 1,2,3, and 4 is $699,267\text{ m}^3$. Target production is 25,000 tons of concentrate per month or 130,000 tonnes of ROM. Entire blocks are mined out for 10.68 months.

Mine Alluvial mining method by way of mechanical-dry method. Mechanical equipment used backhoe, dumptruk, and bulldozers. Dimensions in accordance with 35° slope angle of repose of sand iron, high levels of 3 m, 2 m wide and level. Floor level of work is limited to 3.5 meters above sea level or ground water level as high as in the rainy season. Limit of the mine floor to the depth of -2,5 meters above sea level. Mining is only done on the surface layer of sand.